REMARKS

The Examiner's attention to the present application is noted with appreciation. The Examiner has examined claims 1-10. However, the present application as filed on August 21, 2003 contains 20 claims, not 10. Claims 11-17 are apparatus claims, and claims 18-20 are method claims generally corresponding to the apparatus claims. Applicant assumes that claims 11-17 have been rejected similarly to claim 1; however, it is requested that the next office action address claims 11-20. If the files of the Patent Office do not include pages numbered 15 and 16 of the application as filed, which include claims 11 to 20, please notify the undersigned.

Claim 1 has been amended to incorporate the limitations of claim 4, which has been canceled. Similarly, claim 11 has been amended to incorporate the limitations of claim 13, which has also been canceled.

The Examiner rejected claims 1-3 and 5 under 35 U.S.C. 102(b) as being anticipated by Hitomi et al. Such rejection is respectfully traversed, particularly as to the claims as amended. Specifically, the claims as amended require an EGR cooler disposed within the high pressure loop, which is not disclosed by Hitomi et al.

The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Hitomi et al. in view of Grandin. Applicant assumes such rejection will be made of all claims as presently amended. Such rejections are respectfully traversed. Hitomi et al. do not disclose the use of an EGR cooler in the high pressure EGR loop. This is because the EGR system of Hitomi et al. would not function as described with such a cooler. In column 7, lines 24-34, Hitomi et al. specifically describe the operation of the high pressure loop as operating in the light load region (line 25) and "allowing the exhaust gases having high temperature, ... to be recirculated into the intake system **3**" (lines 27-29). Adding an EGR cooler to lower the exhaust gas temperature would not permit this loop to be used at low load conditions, as is required.

In contrast, in both Grandin and the present invention, the high pressure loop is operated at *high load* conditions, which requires *low* EGR gas temperatures; see Grandin, column 3, lines 28-48, and the present application, page 10, line 2 – page 3, line 2. Thus, Hitomi et al. actually teach away from the

present invention. Further, adding the EGR cooler of Grandin to the high pressure loop of Hitomi et al. would render the latter system inoperable, since the cooler temperature would prevent the high pressure loop from operating under low load conditions. Because there is no expectation of success when said references are combined, there is no motivation to combine said references.

The Examiner also rejected claims 6-8 under 35 U.S.C. 103(a) as being unpatentable over Hitomi et al. in view of Waszkiewicz et al. Such rejections are respectfully traversed, particularly as to the claims as amended. Waszkiewicz et al. disclose an EGR cooler **38** for cooling the exhaust gas passing through the EGR loop **40** (see Fig.1 and col. 3, lines 5-6). This loop is identical to the high pressure loop of Grandin and the present invention, which takes exhaust directly from the exhaust manifold and provides it to the intake manifold. Thus there is no motivation to combine Hitomi et al. and Waszkiewicz et al., since adding the EGR cooler of Waszkiewicz et al. to the high pressure loop of Hitomi et al. would render the latter system inoperable, as discussed above.

The Examiner also rejected claims 9-10 under 35 U.S.C. 103(a) as being unpatentable over Hitomi et al. in view of Khair et al. Such rejections are respectfully traversed, particularly as to the claims as amended. Neither reference discloses a high pressure EGR loop comprising an EGR cooler. Thus the combined references do not teach each and every element of the claimed invention.

In view of the foregoing, allowance of all claims is respectfully requested. If any issues remain, or if the Examiner believes that prosecution of this application might be expedited by discussion of the issues, the Examiner is cordially invited to telephone the undersigned attorney for Applicant at the telephone number listed below, or Ephraim Starr, Reg. No. 41,325, attorney of record for applicant, at (310) 791-9120.

Respectfully submitted,

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